10/517,280

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 4 December 2003 (04.12.2003)

PCT

(10) International Publication Number WO 03/100925 A2

(51) International Patent Classification7:

(21) International Application Number: PCT/US03/16285

(22) International Filing Date: 22 May 2003 (22.05.2003)

(25) Filing Language:

English

H₀1S

(26) Publication Language:

English

(30) Priority Data: 60/382524

22 May 2002 (22.05.2002) US

(71) Applicant (for all designated States except US): BETH ISRAEL DEACONESS MEDICAL CENTER [US/US]; 330 Brookline Avenue, Boston, MA 02215 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): FRANGIONI, John V. [US/US]; 34 Wayland Hills Road, Wayland, MA 01778

(74) Agents: MAZZARESS, Robert A. et al.; Ropes & Gray LLP, One International Place, Boston, MA 02110-2624 (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

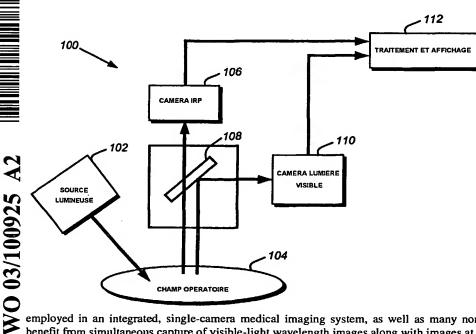
(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: DEVICE FOR WAVELENGTH-SELECTIVE IMAGING



(57) Abstract: An imaging device captures both a visible light image and a diagnostic image, the diagnostic image corresponding to emissions from an imaging medium within the object. The visible light image (which may be color or grayscale) and the diagnostic image may be superimposed to display regions of diagnostic significance within a visible light image. A number of imaging media may be used according to an intended application for the imaging device, and an imaging medium may have wavelengths above, below, or within the visible light spectrum. The devices described herein may packaged advantageously within a single integrated device or other solid state device, and/or

employed in an integrated, single-camera medical imaging system, as well as many non-medical imaging systems that would benefit from simultaneous capture of visible-light wavelength images along with images at other wavelengths.